64 **Identity Politics in the Age of Genocide**
The Holocaust and historical representation
David B. MacDonald

65 **Globalisation, Public Opinion and the State**
Western Europe and East and Southeast Asia
Edited by Takashi Inoguchi and Ian Marsh

66 **Urbicide**
The politics of urban destruction
Martin Coward

67 **Transnational Activism in the UN and the EU**
A comparative study
Jutta Joachim and Birgit Locher

68 **Gender Inclusive**
Essays on violence, men and feminist international relations
Adam Jones

69 **Capitalism, Democracy and the Prevention of War and Poverty**
Edited by Peter Graeff and Guido Mehlkop

70 **Environmental Change and Foreign Policy**
Theory and practice
Edited by Paul G. Harris

71 **Climate Change and Foreign Policy**
Case studies from East to West
Edited by Paul G. Harris

Climate Change and Foreign Policy

Case studies from East to West

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Paul G. Harris

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Contents

Illustrations

Figures

Tables

OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum-Exporting Countries
ORCHID	opportunities and risks for climate change and disasters
PRSP	poverty reduction strategy paper
R&D	research and development
REC	Regional Environment Centre Turkey Office
REPER	Permanent Representation
SB	subsidiary body
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SDF	Self-Defense Force
SEA	strategic environmental assessment
SEPA	State Environmental Protection Administration
TDF	Technology Development Foundation of Turkey
TGNA	Turkish Grand National Assembly
TISK	Turkish Confederation of Employer Associations
TOBB	Union of Chambers and Commodity Exchanges of Turkey
TÜSİAD	Turkish Industrialists' and Businessmen's Association
UG	umbrella group
UK	United Kingdom
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USAID	United States Agency for International Development
WCED	World Commission on Environment and Development
WNO	World Nuclear Association
WPE	Working Party on the Environment
WPIEI/CC	Working Party on International Environmental Issues -Climate Change
WTO	World Trade Organization
WWF	World Wildlife Fund

1 Climate change in environmental foreign policy

Science, diplomacy, and politics

Paul G. Harris

Over the past three decades, climate change has moved from being a minor, mostly scientific, matter in the affairs of states to being a prominent, front-burner foreign policy priority. It is also now a major concern of international organizations, industry, nongovernmental organizations (NGOs) and a growing number of people around the world. As climate change has grown in prominence among other foreign policy priorities, so too have predictions of its adverse impacts on nature and societies. Indeed, many of the effects are being felt today. Governments have negotiated agreements to study climate change and, in the case of many developed states, to start limiting the pollution that causes it. However, their responses to the problem have failed to keep up with the increasing pace of climate change; they are grossly inadequate.

Why this lackluster response to what is likely the greatest problem yet faced by humanity? In this book we aim to help answer this important question by examining the policies of a variety of states from both the developed and developing worlds. Our main aims are: (1) to analyze the politics of climate change within and among states; and (2) to supplement existing knowledge of climate politics by focusing on the actors and processes of *foreign policy*. A premise underlying our work is that analyzing and thinking about climate change from the perspective of foreign policy – the crossovers and interactions between domestic and international politics – will help us to better understand how and why governments have responded the way that they have. Our analyses of climate change politics from the perspective of foreign policy (and other perspectives) can, we believe, reveal new explanations for what has happened in the past and possibly some new solutions to foster greater action in the future.

In this chapter I lay a foundation for subsequent chapters by first summarizing some of the recent scientific findings on the impacts of climate change. I then describe how governments have created a regime of international agreements and ongoing diplomatic negotiations aimed at tackling the problem. I begin by explaining why governments have not done more about climate change by pointing to the ideational complexity of the problem. I go on to show how the politics of climate change can be thought of in terms of

foreign policy. Like many other environmental issues (and other challenges facing the world), climate change is a problem that by its nature *crosses over between* the domestic and international arenas of politics and policymaking. Because foreign policy analysis focuses on these crossovers, and indeed encompasses them, it is a potentially productive way of understanding the world's responses to climate change. Finally, I summarize the chapters that follow before making some concluding remarks.[1]

The science of climate change

Over the past two decades, scientists have radically improved their understanding of the causes and consequence of global warming – the warming of the Earth as a consequence of greenhouse gases (GHGs) building up in the atmosphere. The Intergovernmental Panel on Climate Change (IPCC), created by governments in 1988 to study climate change, has concluded with "*very high* confidence that the global average net effect of human activities since 1750 has been one of warming" (IPCC 2007: 37). Carbon dioxide, the most influential GHG in aggregate, is emitted through the burning of fossil fuels (e.g., coal, oil, natural gas), and when trees are felled and subsequently decay or are burned. "Climate change" refers to changes in climate and their consequences resulting from global warming, with the United Nations (UN) Framework Convention on Climate Change (FCCC) including under this rubric atmospheric changes connected directly or indirectly to human activities.[2] This human-induced global warming was, until recently, viewed as a *future* problem. But it is becoming clearer that *ongoing* climatic changes are consequences of global warming (*New Scientist* 2006). The impacts of climate change on natural ecosystems and on human society and economies are potentially severe, particularly in parts of the world where geographic vulnerability and poverty make adaptation difficult or impossible. Importantly for our understanding of the politics of climate change, the problem is intimately connected to most economic activity and modern lifestyles, thereby connecting the Earth and the natural world with human societies.

Actual effects of climate change

The most authoritative reports on the causes and consequences of climate change come from the IPCC, especially its 2007 fourth assessment report.[3] According to the assessment, since 1970 anthropogenic GHG emissions have increased globally by 70 per cent, with CO_2 in particular increasing by 80 per cent, especially since 1995. The IPCC reports that "atmospheric concentrations of CO_2 and CH_4 [methane] in 2005 exceed by far the natural range over the last 650,000 years" (IPCC 2007: 37). The concentration of CO_2 in the atmosphere in 2005 was 379 parts per million (ppm) compared to 280 ppm prior to the Industrial Revolution, with the annual increase being nearly 2 ppm. Importantly, although plants and the oceans absorb CO_2, global warming inhibits their ability to do so, thereby creating a feedback loop contributing to more warming and greater climate change. Perhaps seeking to counter the political influence of "climate skeptics" – who question the reality of global warming and attribute it to all manner of causes, such as sun spots – the IPCC has declared that "[w]arming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level" (ibid.: 30). What is more, in a new determination since its third assessment report in 2001, the panel found that "discernible human influences extend beyond average temperature to other aspects of climate, including temperature extremes and wind patterns" (ibid.: 40). That is, the impacts of climate change are undoubtedly attributable to human activities.

Among many ongoing adverse impacts of climate change, the proportion of Earth affected by drought has increased, as has the frequency of extreme weather events, heavy precipitation, incidence of intense tropical cyclones, extreme high sea levels in a wide range of locations, and heat waves (in most regions). Meanwhile, the frequency of cool days and nights has declined. These changes are having noticeable effects on both physical and biological systems, as demonstrated by melting glaciers and sea ice; warming of lakes and rivers; the early advent of spring and associated changes to plants and wildlife, such as earlier greening of vegetation and impacts on bird migration and egg laying; and major impacts on marine ecosystems, including changes in salinity and currents, changes in ranges of marine life and timing and locations of fish migrations, likely adverse impacts on reefs, and losses of coastal wetlands and mangroves (both crucial for healthy fisheries). The IPCC reports adverse changes to agriculture and harm to forests from more fires and pests. Human health has also been affected by heat stresses and expanding ranges of disease vectors (e.g., mosquitoes), among other effects.

Future effects of climate change

The IPCC has considered the influence of planned and likely national sustainable development policies and efforts to mitigate climate change. Its findings are not optimistic: even following the adoption of anticipated proactive policies, GHG emissions will climb. The panel projected out two decades, anticipating about 0.2 degree C increase per decade under most emissions scenarios, with future temperature increases of course depending on how the world responds. Global average temperature is predicted to rise by 1.4 to 5.8 degrees C, with the highest increase more likely without additional mitigation policies. With continued warming, expected manifestations of climate change in this century will be "larger" (i.e., usually more adverse) than those seen in the last century (IPCC 2007: 45). Changes expected this century include generally higher temperatures over land and at high northern latitudes, reduced snow cover, thawing permafrost, shrinking sea ice, sea-level

rise, more frequent heat waves, heavy precipitation events and more intense tropical cyclones. As a consequence,

> the resilience of many ecosystems is likely to be exceeded this century by an unprecedented combination of climate change, associated disturbances (e.g. flooding, drought, wildfire, insects, ocean acidification) and other global change drivers (e.g. land-use change, pollution, fragmentation of natural systems, overexploitation of resources).
>
> (ibid.: 48)

Positive feedbacks will increase as carbon uptake by plants reaches saturation, the risk of extinction for 20–30 per cent of plant and animal species will increase (based on only 2.5 degrees of warming), and changes in biodiversity and ecosystems seen in the last century will be exacerbated – adversely affecting human needs, such as water and food supplies. Coastal erosion and flooding due to sea-level rise will increase. Extreme weather events are expected to become more frequent and intense, with "mostly adverse effects on natural and human systems" (ibid.: 53).

The health of millions of people will be adversely affected

> through, for example, increases in malnutrition; increased deaths, diseases and injury due to extreme weather events; increased burden of diarrhoeal diseases; increased frequency of cardio-respiratory diseases due to higher concentrations of ground-level ozone in urban areas related to climate change; and the altered spatial distribution of some infectious diseases.
>
> (ibid.: 48)

Even in affluent parts of the world, which have a greater aggregate capacity to adapt, some groups of people, notably the poor and the elderly, will suffer the risks of climate change. The upshot is that, around the world, "[m]ore people are projected to be harmed than benefited by climate change," even if temperature increases are somehow mitigated (Working Group II (IPCC) 2001: para. 2.8).

Regional effects will vary, ranging from up to hundreds of millions of people exposed to water stress in Africa, increased flooding in the coastal and delta regions of Asia, significant loss of biodiversity in Australia, retreat of glaciers in the mountains of Europe and water shortages in southern Europe, loss of tropical forests and biodiversity in Latin America, water shortages and heat waves in North America, detrimental changes to natural ecosystems in polar regions, and inundations and storm surges in small islands – to list only a few of the anticipated changes in coming decades. Later in the century, the likelihood of abrupt or irreversible environmental changes increases, with some of them considered inevitable. These could include rapid sea-level rise, significant extinctions (40 to 70 per cent of species if temperature increases exceed 3.5 degrees C), large-scale, persistent changes to marine systems and fisheries, and yet more positive (i.e., harmful) feedback loops as oceans absorb less CO_2. In future centuries, impacts of climate change could be truly monumental.

The diplomacy of climate change

Scientific assessments by the IPCC and other scientists provided the stimulus for international agreements to address climate change. However, because the science has been intimately wrapped up with politics, climate diplomacy has often taken on a life of its own, one that is partly divorced from science. One of the earliest important international events was the 1979 First World Climate Conference, a gathering of scientists interested in climate change and its relationship with human activities. From that conference a program of scientific research was established, leading to the creation of the IPCC in 1988. The IPCC's first assessment report and the Second World Climate Conference in 1990 added stimulus to initial concerns about climate change among governments. In December 1990, therefore, the UN General Assembly established the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change. The goal of the committee was to negotiate a framework convention that would be the basis for subsequent international protocols dealing with climate change.

The climate change regime

From that point until the 1992 UN Conference on Environment and Development ("Earth Summit"), representatives of over 150 states negotiated the FCCC. The stated aim of the FCCC is:

> Stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.
>
> (UNFCCC 1992: Art. 2)

The FCCC called on the world's most economically developed states to reduce their emissions of GHGs to 1990 levels by 2000; this objective was not achieved. The FCCC came into force in 1994, after ratification by 50 states. Particular responsibility was also laid on the developed states to provide "new and additional" resources to developing countries to help them with their efforts to limit GHG emissions. While negotiation of the FCCC was fraught, and characterized by tensions between developed and developing states, negotiations after 1992 were even more contentious.

In 1995, parties to the FCCC established the Conference of the Parties (COP), which became the convention's overriding authority. Many COP meetings were held to negotiate the details of how GHG emissions limitations would be achieved. At COP1 (Berlin, 1995), developed states acknowledged that they had a greater share of the responsibility for causing climate change and would act to address it first. Central to the resulting Berlin Mandate was the demand by developing countries that the industrialized states take on greater commitments to reduce their GHG emissions and assist the poor countries with sustainable development. Thus COP1 affirmed the notion of "common but differentiated responsibility," meaning that, while all states have a common responsibility to address climate change, the developed states have greater ("differentiated") obligation to do so. At COP2 (Geneva, 1996), states called for a legally binding protocol with specific targets and timetables for reductions of GHG emissions by developed states. The resulting Geneva Declaration served as the negotiating basis for the Kyoto Protocol, which was agreed in December 1997 at the COP3 in Kyoto. The protocol requires most developed country parties to reduce their aggregate GHG emissions by 5.2 per cent below 1990 levels between 2008 and 2012. However, not all developed states agreed to be bound by the protocol.

The Kyoto conference proved to be especially contentious, not least because the United States seemed to be reneging on the Berlin Mandate when President Bill Clinton called for the "meaningful participation" of developing countries. Nevertheless, diplomats at the conference managed to agree to the Kyoto Protocol, which established specific emissions goals for developed states without requiring significant commitments from developing states. The protocol also endorsed emissions-trading programs that would allow developed states to buy and sell emissions credits among themselves. Other so-called flexible mechanisms included in the protocol were "joint implementation," whereby developed states could earn emissions credits when investing in one another's emissions-reduction projects, and the Clean Development Mechanism (CDM), which allows developed country entities to pay for – and receive emissions credits for – emissions-reduction projects in developing states.

Implementation of the Kyoto Protocol

Some of the means by which the Kyoto Protocol's 5 per cent goal would be reached were codified at COP4 (Buenos Aires, November 1998). At COP5 in Bonn in October 1999, parties agreed to a timetable for completing outstanding details of the Kyoto Protocol by COP6 and, in an effort to speed up negotiations, gave the conference president the power to "take all necessary steps to intensify the negotiating process on all issues during the coming year" (FCCC 1999). The sixth COP began in November 2000 in The Hague, but the talks broke down due to disagreements among delegates, particularly

on the question of carbon sinks, which are processes, such as planting trees (afforestation) that can remove GHGs from the atmosphere. The Kyoto Protocol's ratification was put into doubt with the advent of President George W. Bush in the United States, who withdrew all US support for it. The sixth COP resumed in Bonn during July 2001. The resulting Bonn Agreement clarified plans for emissions trading, carbon sinks, compliance mechanisms and aid to developing countries. At COP7 (Marrakech, 2001) parties to the FCC agreed to a long list of ways to meet the Kyoto commitments. The result was the Marrakech Accords, a complicated mix of proposals for implementing the Kyoto Protocol, largely designed to garner ratification from enough states to allow the protocol to enter into force. Parties agreed to increase funding for the FCCC's financial mechanism, the Global Environmental Facility, as well as to establish three new funds that would provide additional aid to poor countries: the Least Developed Countries Fund, the Special Climate Change Fund, and the Adaptation Fund.

A milestone of sorts was reached at the October 2002 COP8 in New Delhi. A tacit agreement between the United States, a few other developed states and several large developing countries, notably China and India, emerged that shifted much of the focus away from mitigating climate change and toward adaptation – wealthy countries agreeing to help developing countries adapt to climate change, rather than the former having to reduce their GHG pollution. It was at this COP, as well as at COP9, that diplomats discussed ways to implement the Marrakech Accords and prepare for ratification of the Kyoto Protocol. The tenth COP (Buenos Aires, December 2004) was dubbed the "Adaptation COP" because discussion focused more on adaptation to climate change than the more common COP discussions about efforts to mitigate it through emissions limitations. In the end, there were pledges for more assistance to aid poor countries most affected by climate change, but there were no firm commitments to make access to adaptation funds easier for developing states. Importantly, it was also in 2004 that Russia ratified the Kyoto Protocol, allowing the agreement to finally enter into force in February 2005.

One visible aspect of the climate change negotiations has been the acrimony between the developed states – particularly the United States – and the developing world. The international negotiations have been plagued by the efforts of developed countries to persuade developing countries to commit to emissions limitations, on the one hand, and developing country efforts to avoid such commitments, on the other. These differences were manifested during the late-2005 combined COP11 and "First Conference of the Parties Serving as the Meeting of the Parties" to the Kyoto Protocol (COP/MOP-1), which were held simultaneously in Montreal. Despite US attempts to derail the meeting, it formalized rules for implementing the protocol (e.g., rules for emissions trading, joint implementation, crediting of emissions sinks and penalties for non-compliance), streamlined and strengthened the CDM, began negotiations on further commitments by developed country parties to

the protocol beyond 2012 (when the Kyoto commitments expire), set out guidelines for an Adaptation Fund, and initiated a process for negotiating long-term action to combat climate change. Several developing countries, while still opposed to binding obligations, showed new interest in undertaking voluntary measures, in keeping with the principle of common but differentiated responsibility.

Whither the Kyoto Protocol?

Climate negotiations in the past few years have resulted in mostly incremental progress. In his opening address to the November 2006 COP12 in Nairobi, UN Secretary-General Kofi Annan characterized the negotiations up to that point as displaying a "frightening lack of leadership" from governments (Anan 2006). At COP13 (Bali, 2007), the familiar arguments between developed and developing states were manifest: European states argued in favor of deeper international commitments for GHG cuts, the United States strongly opposed them, and developing countries argued for more financial and technological assistance (Pew Center 2007). The discussions at Bali were pushed to a substantial degree by the IPCC's fourth assessment report, which removed any remaining doubt (among officials willing to entertain the facts) about the seriousness of the problem. The meeting was important in its widespread opposition to efforts by US diplomats to thwart negotiations on a new, post-2012 agreement that would oblige developed states to take on new obligations to limit GHG emissions and aid developing states with sustainable development. In the end, developing country governments agreed that they would consider taking unspecified future actions to mitigate their GHG emissions, which was a substantial shift from their longstanding policy of refusing to agree to any commitments whatsoever. The quid pro quo for the developing countries' stated willingness to consider future emissions limitations was a streamlining of the Adaptation Fund and sourcing it with a new 2 per cent levy on CDM projects. Developed states also agreed to new emissions targets and timetables – but, as with the developing states' agreement, nothing was specified. Diplomats instead adopted the so-called Bali Roadmap, intended to guide discussions leading to a new, comprehensive agreement, under both the FCCC and the Kyoto Protocol, to be agreed in time for a conference of parties in Copenhagen at the end of 2009.

All these international efforts to address climate change have been far too little when viewed in relation to the severity of the problem. Even with full implementation, the Kyoto Protocol will result in reductions of well under 5 per cent of parties' emissions because the manner in which they are allowed to meet their commitments (e.g., emissions trading and land-use changes) often will not result in significant national emissions cuts. However, scientists tell us that emissions of carbon dioxide must be ended *completely* just to stabilize their concentrations in the atmosphere and to prevent chaos in the

global climate system (Mathews and Caldeira 2008). In what could become a seminal essay on climate change, James Hansen *et al.* (2008) have shown that, due to the time lag before the full impact of emissions is felt, even *current* concentrations of CO_2 in the atmosphere will likely bring dangerous interference with Earth's climate system that the FCCC was intended to prevent. Even the relatively ambitious aim of the European Union to keep global temperatures to only 2 degrees C above pre-industrial levels is far too weak a target. The current concentration of CO_2 (about 385 ppm) is "already too high to maintain the climate to which humanity, wildlife, and the rest of the biosphere are adapted" (ibid.: 15). Instead, what is required at minimum is an effort to bring CO_2 concentrations down, very quickly, to about 350 ppm, meaning a near-total move away from any use of fossil fuels if carbon cannot be captured and permanently stored – something that is not practically possible at present. According to Hansen *et al.* (ibid.: 15):

> Present policies, with continued construction of coal-fired power plants without CO_2 capture, suggest that decision-makers do not appreciated the gravity of the situation. We must begin to move now toward the era beyond fossil fuels. Continued greenhouse gas emissions, for just another decade, practically eliminate the possibility of near-term return of atmospheric composition beneath the tipping level for catastrophic effects.

Consequently, the Kyoto Protocol is, at best, a very tiny step toward greater action. In the meantime, global GHG emissions will continue to rise precipitously, notably because large developing countries (especially China and India) will be increasing their use of fossil fuels as their economies grow. Climate change will continue, virtually unabated, short of new, *much more aggressive* collective action to reduce GHGs. However, strong signals of the more robust action needed are distinct in their absence. The IPCC, in a typically guarded understatement, characterizes the failure of the Kyoto Protocol this way: "To be more environmentally effective, future mitigation efforts would need to achieve deeper reductions [than the protocol] covering a higher share of global emissions" (IPCC 2007: 62). Indeed, international legal instruments intended to avert dangerous interference with the Earth's climate – the stated aim of the FCCC – are increasingly about mitigating and adapting to that dangerous interference, rather than averting it.

Ideational complexity of climate change

What is it about climate change that has caused governments to react so slowly? One answer is found in *ideas* about climate change and their effect on politics. The notion that ideas matter in international affairs is not new, as reflected in the constructivist literature cited in some of the chapters to follow. In the case of climate change, problems lie in the multiple identities it

evokes. For example, some officials view climate change as a minor issue, less important than other concerns. Alternatively, some people and governments recognize that in the medium and long term, climate change will have profoundly adverse consequences. For them, it is a priority. For other officials climate change is about environmental stewardship or even morality, and many nongovernmental actors – alongside developing-world governments – view it as a matter of fairness. In short, the spectrum of views on climate change is very wide. What is more, some people see climate change from many perspectives at once: it may be simultaneously perceived as a short-term economic concern for one's own state, a question of international distributive justice in the medium term, or a vital matter of national and global security in the long term.

Much as the climate is changing, the idea of climate change is a moving target that varies as the science shifts. With improved understanding of the causes and impacts of climate change, more governments recognize that inaction is no longer a credible option. Many people now identify with the problem and want to act accordingly. However, the *kinds of ideas* propagated internationally remain a central factor shaping outcomes. The climate regime has been constructed on a weak ideational foundation based on out-of-date (if quite recent) science sullied by "climate skeptics" and popular media. Just as more governments are starting to call seriously for greenhouse gas cuts of 50 per cent (and sometimes more) below recent levels by mid-century, it becomes clear that cuts of 100 per cent *or more* (through carbon sequestration) will be required. Such cuts are not on the political cards, domestically or internationally.

Another problematic feature of climate politics is the many competing levels of political bargaining and action. It is a matter of local, domestic and international politics (and economics), just as it affects people locally, nationally and globally. The multiple conceptions of climate politics, and the identities that arise as a consequence, operate in overlapping layers of conflicting actors and processes, making arriving at agreement on how to deal with climate change dizzyingly complicated. Indeed, the politics of climate change make the politics of other notoriously complicated issues, such as international trade and arms proliferation, look relatively simple.

What will be required to construct a new, post-Kyoto climate regime amid this interplay of international and domestic politics? Foremost, a much greater sense of urgency will have to sink in very soon, and do so much more widely. Once enough people and governments are convinced that their homelands cannot avoid the adverse effects of climate change, and that acting now is less costly than acting much later, the pace of policy innovations will pick up. Additionally, international justice, and even cosmopolitan justice, will have to be seen as central to the climate regime (see Vanderheiden 2008). International justice is required to persuade major developing states to place some limitations on their future emissions; cosmopolitan justice is required to ensure that growing legions of wealthy people around the world do not pollute at the expense of everyone, especially the poor, in the future.

If climate catastrophe is to be averted, we must quickly transition to a post-carbon world. Even the consensus-based scientific findings of the Intergovernmental Panel on Climate Change, and especially independent scientific assessments of future effects of climate change, leave no doubt about the severity of the problem. To be sure, world leaders no longer stridently deny the reality of climate change. However, the ideas that are driving climate politics remain dated and lacking in immediacy.

Foreign policy of climate change

Environmental foreign policy can be conceived of as the interplay between (1) domestic forces, institutions and actors involved in environmental decision-making and the implementation of environmental policies, and (2) international forces, institutions and actors, such as environmental changes themselves and their interaction with other forces (e.g., democratization, globalization), international environmental organizations and regimes, and powerful states, corporations and NGOs with a role in shaping human responses to environmental changes.[4] Environmental foreign policy is about the international *environmental* objectives that officials of national governments seek to attain; the values and principles – including but not restricted to environmental ones – underlying those objectives; the methods by which the objectives are sought; the processes by which these objectives, principles and methods are developed and implemented; and the domestic and international actors and forces – including, but not exclusively, environmental ones – shaping environmental policies and actions both at home and abroad, but which have an international or external character.

Environmental issues are often distinctive in the manner in which they ignore state borders: problems in one country affect others and problems restricted to one country require the involvement of others (e.g., financial assistance and technology) if they are to be resolved or remain local. Many issues, actors and forces acting domestically and internationally affect and influence states' national environmental regulations and their environmental foreign policies, and hence they impact international environmental cooperation. Yet, despite obvious (albeit not fully comprehended) connections between local and international policy processes, many studies do not fully account for the foreign policy aspects of environmental protection efforts. They tend to focus on international regimes or domestic politics as drivers of international environmental relations – which is indeed often the case – without also looking at the foreign policy processes and actors that can impact responses to environmental issues.

Foreign policy objectives, actors and processes can be central in determining whether states cooperate to address climate change. Many environmental policy officials are simultaneously pressured to follow international

norms and promote national interests and ideals. That is, they are buffeted by both domestic *and* international forces. Thus looking at purely local or international variables seldom explains environmental policy within and among states. Thinking about foreign policy focuses our attention on interactions among domestic political preferences and positions governments take in negotiations, the balancing of economic growth and popular demands for development with foreign pressures to join environmental regimes, and the rivalries and alliances between foreign policy agencies and the individuals working in them (among many other considerations). Looking at foreign policy processes more systematically can reveal important national and institutional characteristics shaping state environmental behavior, both domestically and internationally.

Foreign policy analysis is well suited to studying responses to environmental changes because it considers the "continuing erosion of the distinction between domestic and foreign issues, between the sociopolitical and economic processes that unfold at home and those that transpire abroad" (Rosenau 1987: 3). Applying techniques of foreign policy analysis to climate change, or at least considering them along with other analytical approaches, can result in interesting findings simply because climate change is quite distinct from many other issues given its elevated level of uncertainty, often temporally distant impacts and the great number of, and disparity in, stakeholders involved. With this in mind, the following chapters demonstrate a number of ways in which thinking about foreign policy can be useful in explaining the national and international politics of climate change.

Case studies from East to West

Our case studies begin with Melissa Nursey-Bray's description, in Chapter 2, of how Australian foreign policy on climate change has shifted significantly over the last 15 years. Drawing on media reports and parliamentary and policy documents, she uses historical discourse analysis as both a theoretical and methodological tool to investigate the ways in which different "discourse coalitions" have affected Australia's climate-related foreign policy. Nursey-Bray focuses on key discursive themes, such as the disjuncture between discourse about the economy and the environment, the relationship between domestic and international policy on climate change, and the ratification of the Kyoto Protocol. The 2007 Federal election provides a case study for investigation of these issues. Nursey-Bray argues that anomalies between different policy stands at domestic and international levels are a result of a conscious and strategic manipulation of the discourse about climate change, the economy and Australia's place in the world. Thus, her chapter explores the nexus between discursive strategy and material practice in environmental foreign policy.

Our next two case studies look at East Asian states. In Chapter 3, Hiroshi Ohta analyzes Japan's climate change foreign policy. His case study places current Japanese governmental policy for the mitigation of climate change in both theoretical and historical perspectives. Japan is especially vulnerable to climate change because it is surrounded by the ocean, which is likely to rise substantially (placing the country's coasts at great risk) and to change in other ways that will affect Japan, not least the likely adverse effects on fisheries. Consequently, Japan would be expected to play a leading role in international negotiations to combat climate change. However, throughout international negotiations of the climate change regime, Japan has consistently played the role of a reluctant leader, at best, in large part due to the high costs of mitigating greenhouse gas emissions in Japan itself. Ohta argues that, without a dynamic political leadership able to guide the bureaucracy and industry toward greater support for environmental NGOs, Japan is unlikely to become a proactive international leader for arresting future climate change.

In Chapter 4, China's internal and external response to climate change are examined by Paul G. Harris and Hongyuan Yu. China is among the countries that will suffer the most from the effects of climate change. Although its per capita emissions of pollutants causing global warming remain relatively low compared to the world's richest countries, China is now the largest national source of GHG pollution, having recently overtaken the United States. How China responds to this problem has profound implications for its people, its neighbors and the world. China has joined with other states in debating this issue, and it has started to implement programs and policies to reduce its GHG emissions. However, its domestic actions have rarely been motivated by concerns about the impacts of climate change, and its response has been to avoid international regulation while waiting for the developed states to act. Given this response, short of radical change in politics and environment, it is unlikely that China will adequately restrain its greenhouse gas emissions, thus mirroring – to the detriment of all – the industrialization and growth of the world's wealthy countries.

Turkey's foreign policy on global atmospheric commons, namely climate and stratospheric ozone depletion, is described in Chapter 5. In this chapter, Semra Cerit Mazlum shows how representing major characteristics of Turkey's response to international environmental cooperation generally, and climate change and ozone depletion in particular, provides rich ground for studying environmental foreign policy. Mazlum examines these policies from a comparative perspective. While Turkey has pursued relatively similar foreign policies on these issues, its engagement in the ozone regime has proved easier than that for climate change. Economic development, national security and sovereignty over natural resources are the major concerns that have predominantly shaped the content and direction of Turkey's environmental foreign policy. However, it is the former – economic development – that primarily fuels perceptions of national interest in Turkey's environmental foreign policies, especially with regard to ozone and climate change.

In Chapter 6, Zsolt Boda, Györgyi Bela, and Zsuzsanna Pató look at the foreign environmental policies of Hungary. They go beyond climate change

alone to juxtapose it with the country's foreign policy on biodiversity. Why would Hungary, a small, middle-income country experiencing the turbulence of deep political and economic changes following the fall of communism, care about global environmental problems? After the replacement of the ruling Communist regime in 1989, the 1990s were marked by serious social and economic problems. Nevertheless, in 1992, Hungary joined the FCCC and the Convention on Biological Diversity. This case study shows how environmental foreign policy served first and foremost as a means by which post-communist Hungary could rapidly become an active and responsible member of the international community.

But what of a country that has not experienced such turmoil? In Chapter 7, a team of authors explore options for Denmark to integrate climate change with a number of other foreign policy priorities. Murphy *et al.* argue that addressing climate change requires encouraging new foreign policy thinking that goes outside the "environment box." For example, foreign policy related to energy security can help address the needs of oil producers by encouraging improved market access and support for diversification of their economies and improved non-oil investments. Trade policy can encourage the lowering of tariff and non-tariff barriers to environmental goods and services. Chapter 7 examines these and other opportunities for a broader framing of climate change in Danish foreign policy.

Environmental foreign policy in another European state is analyzed in Chapter 8. Joseph Szarka introduces us to national interests, energy and climate change in the French context. France's foreign policy was historically motivated by aspirations to become a world power. In the contemporary period it has been motivated more by economic and environmental considerations. The development of nuclear power in France illustrates the impact of what Szarka calls "path dependency on national preference formation" at the levels of technological trajectory, domestic supply logic and export strategy. The latter initially comprised electricity sales, procedures for reactor construction and safety, and fuel cycle expertise. But the advent of the climate change regime offered France new opportunities to export not just technologies but also its normative preferences, in the shape of an energy-climate policy template. Through this process, Szarka argues, the French nuclear sector has contributed to an evolving construction of national interests through the inter-linkage of national security, energy security and climate protection goals.

In Chapter 9, Oriol Costa asks, Who decides EU foreign policy on climate change? The European Union leads the international climate negotiations, and the exercise of this leadership has been well studied. This said, there have been surprisingly few analyses addressing the specific mechanism by which the EU's collective foreign policy on climate change is formed. How are decisions being made on the matter and who is making them? Costa's chapter shows that a small group of national, specialized, middle-ranking officials, together with their counterparts within the European Commission, have played an influential role in this decision-making process. Indeed, he contends that they have been empowered by the very existence of international negotiations and agreements on climate change, demonstrating the feedback loops among international environmental regimes, foreign policy processes and domestic politics.

While the European Union and many of its member states have, to a great extent, been attempting to join and even lead international efforts to seriously address climate change, the same cannot be said for the United States. Indeed, as Elizabeth L. Chalecki argues in Chapter 10, the United States has chosen a very different path, one of "exceptionalism" in its climate policy in general and in its policies with regard to the Kyoto Protocol process in particular. This exceptionalism has been characterized by the refusal of the United States government to support the climate change regime, and even by US efforts to undermine it. To be sure, under *traditional* international law, taking exception to international agreements is an accepted and often valid option for states. But this is no longer true, if it ever was, in the case of climate change. The arguments that the US government, and particularly the Bush administration, has marshaled to justify US exceptionalism lack merit in light of current climate science. A new customary norm of compliance is emerging for multilateral environmental agreements, and the United States is finding itself out of compliance. Chalecki shows how recognition of the norm, and compliance with it by the United States, will demonstrate the applicability of science to international law generally and environmental foreign policy in particular.

Our final case study focuses on adaptation to climate change. In Chapter 11, Åsa Persson and Richard J.T. Klein look specifically at "mainstreaming" adaptation, in the process pointing to how integrating environmental foreign policies can contribute to better outcomes in official development assistance. Drawing from literature on environmental policy integration, Persson and Klein describe the "horizontal, vertical and international dimensions of mainstreaming," and they identify challenges associated with each of these dimensions. Four complementary approaches to mainstreaming are outlined in their chapter: procedural, organizational, normative and "reframing." Their case study shows that extant work on mainstreaming adaptation to climate change has revealed two paradoxes: one concerning visibility and ownership of adaptation when mainstreamed, and one concerning the funding choices to support adaptation and mainstreaming. Thus they expose problems in the practice of environmental foreign policy while proposing solutions to those problems.

Conclusion

The international political response to climate change has been slow, incremental and ultimately weak when viewed relative to the scale of the problem and its anticipated impacts on people, communities and other life on Earth.

In the words of Hansen *et al.* (2008: 15), "the stakes, for all life on the planet, surpass those of any previous crisis. The greatest danger is continued ignorance and denial, which could make tragic consequences unavoidable." Although some observers believe that climate diplomacy and the agreements that have resulted from it, and especially those that are now being negotiated, are remarkable and important steps toward the kind of action that scientists say is required, it is more accurate to describe the response so far as sluggish. There has been movement in the right direction, but very little given what is required. Even as ideas about the threats from climate change have taken hold and started to shape international and domestic politics, the response by states has been far too modest.

Scientists have passed judgment, and now it is up to governments and other actors to find efficient, effective and equitable means of responding to climate change very soon. As the pace of climate change quickens, it is time for everyone to catch up. The upshot is that by thinking more consciously in terms of *foreign policy*, the contributors to this volume illuminate some of the most important actors, ideas and forces shaping the world's responses to climate change. If taken seriously, their case studies can help us to understand what has already been done to mitigate and adapt to climate change, and help policy-makers and stakeholders find new avenues for action to limit further environmental decline – and possibly to avert catastrophe.

Notes

1 Parts of this chapter are adapted from Harris (2007a, 2007b, 2008a, 2008b).
2 "Climate change" in IPCC lexicon refers to changes from both natural processes and human activities, whereas the FCCC addresses only the latter.
3 Here I summarize findings of the IPCC's multi-volume fourth assessment report as recounted in IPCC (2007). The full IPCC reports are available at http://www.ipcc.ch/.
4 For an examination of the concept of environmental foreign policy and a number of related case studies, see the companion to this volume, *Environmental Change and Foreign Policy: Theory and Practice* (Harris 2009), especially Chapters 1, 2 and 13.

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